

REMARKS

Claims 1-4 are pending and under consideration in the above-identified application.

In the Office Action dated June 12, 2009, the Examiner rejected claims 1-4.

I. 35 U.S.C. § 103 Obviousness Rejection of Claims

Claims 1-4 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kim et al. (U.S. Patent Publication No. 2002 0145695) Applicant respectfully traverses this rejection.

The claims require a liquid crystal display apparatus that includes a plurality of vertical signal lines, a plurality of horizontal signal lines and a display pixel located where one of the vertical signal lines and one of the horizontal signal lines intersect. Additionally, the claims require that a potential of the shield wires is set at a value at which the display pixel is displayed in black or nearly black.

When the potential of the shield wire is set to black or nearly black, the display pixel will be black or nearly black when a defect such as a short circuit occurs between the shield wire and the pixel. Since it is difficult for the human eye to distinguish any difference in an image of three colors (red, green and blue) if one of the colors is displayed in black instead of the intended color, the short circuit is not caught by the human eye and is therefore not detected as a defect. Specification, page 8.

Kim et al. teaches a liquid crystal display that includes a vertical data wire (70), a horizontal gate line (20) with a pixel electrode located at the intersection of the data wire and the gate line. Kim et al., paragraph [0040] & Fig. 1A. Kim et al. also teaches that the storage electrode wires have a common voltage in order to stabilize the electric field of the pixels. Kim et al., paragraph [0062]. Kim et al. teaches this feature in order to "[prevent the] electric field of a gate line and a data line from influencing on the electric field in a domain." Kim et al. [0010].

As noted by the Examiner, Kim et al. fails to teach that the equal potential of the storage electrode wire and the common electrode are set a potential that is black or nearly black as required by the claims. Office Action, Page 3. Applicant contends that this requirement would not have been obvious in view of Kim et al. as the Examiner suggests.

In order to achieve the object of the invention in Kim et al., the storage electrode wires must merely have a common voltage. The present invention, however, addresses the problem of a visual defect that occurs when, for example, a defect such as a short circuit occurs between the shield wire and the pixel. Kim et al. does not recognize this problem, nor provide any possible solution for such problem.

As such, Kim et al. provides no reason which would have prompted one of ordinary skill to modify the invention disclosed by Kim et al. so as to reach the requirements of the present claim. Furthermore, the Examiner has provided no evidence that there would have been a reasonable expectation of success of such modification. *MPEP* § 2143; *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. ___, Slip Op No. 04-1350, 119 Fed. Appx. 282 (April 30, 2007). Here, Kim et al. merely teaches that the storage electrode wires must have a common voltage, but does not teach or even fairly suggest that a potential of the shield wires is set at a value at which the display pixel is displayed in black or nearly black.

Thus, independent claims 1 and 2 are patentable over the cited reference as are dependent claims 3 and 4 for at least the same reasons. Accordingly, Applicants respectfully request that the above rejection be withdrawn.

II. Conclusion

In view of the above amendments and remarks, Applicants submit that all claims are clearly allowable over the cited prior art, and respectfully requests early and favorable notification to that effect.

Respectfully submitted,

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By: /Anne K. Wasilchuk/
Anne K. Wasilchuk
Registration No. 59,592
SONNENSCHN NATH & ROSENTHAL LLP
P.O. Box 061080
Wacker Drive Station, Sears Tower
Chicago, Illinois 60606-1080
(312) 876-8000